

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) Valve actuator for internal combustion engines, comprising at least one ~~said~~ electromagnet having a coil (106₄₇, 108₄) and a magnetic plate ~~(114₄)~~, whose movement controls the displacement of the valve, ~~characterized in that wherein~~ the parameters of the electromagnet and of the plate are such that at least part of the magnetic circuit formed by the electromagnet and the plate is in a state of magnetic saturation when the magnetic plate is in the proximity of the electromagnet, the parameters being such that the magnetic circuit is in the state of magnetic nonsaturation when ~~[[it]]~~ the plate is located at a distance from the electromagnet.
2. (Currently Amended) Actuator in accordance with claim 1, ~~characterized in that wherein~~ the parameters are such that at least part of the magnetic circuit is in the state of magnetic saturation for an air gap between the plate and the electromagnet of between 0 mm and at most 1 mm.
3. (Currently Amended) Actuator in accordance with claim 1 or 2, ~~characterized in that wherein~~ the parameters of the electromagnet and of the plate comprise parameters related to at least one of the shape, and/or the dimensions and/or of the plate, the nature of the material ~~(or the materials)~~ forming the plate and the body of the electromagnet and ~~[[/or]]~~ the intensity of the current flowing through the coil of the electromagnet.
4. (Currently Amended) Actuator in accordance with claim 3, ~~characterized in that wherein~~ the thickness of the plate is such that this plate is magnetically saturated in the proximity of the electromagnet.
5. (Currently Amended) Actuator in accordance with claim 3, ~~characterized in that wherein~~ the magnetic plate has at least one ~~said~~ contracted part (144, 146) intended to be saturated when this plate is located in the proximity of the electromagnet.

6. (Currently Amended) Actuator in accordance with ~~one of the claim~~[[s]] 3 through 5, characterized in that wherein the material forming the plate has a lower saturation threshold than the material forming the body of the electromagnet.

7. (Currently Amended) Actuator in accordance with one of the claims 1 or 2 through 6, characterized in that it ~~comprises~~further comprising a regulator controlling the current in the electromagnet.

8. (Currently Amended) Internal combustion engine comprising at least one valve in accordance with ~~any of the above claims~~claim 1 or 2.